

ABSTRACT

1 A communication network employed by the present invention includes one or more
2 ground stations and a plurality of satellites. The ground stations and satellites basically serve
3 as network nodes and each include a router that typically employs the OSPF routing protocol
4 to route information through the network. The present invention utilizes apriori knowledge
5 of topology changes to facilitate computations of routes. Since the network topology changes
6 due to known movement of the satellites, the present invention predicts links becoming
7 disabled based on the apriori knowledge and causes the OSPF protocol to recompute routes
8 prior to disablement of the predicted links. The recomputation by the protocol is initiated by
9 preventing transmission and reception of neighbor discovery and maintenance or "Hello"
10 type packets over the predicted link. Thus, new routes are determined by the protocol prior
11 to the previous routes becoming disabled due to a topology change.